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THE FARM INDEX

U.S. Department of Agriculture/Economic Research Service/September, 1970

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Haze Over Tobacco Row p.13

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Agricultural Outlook

Keeping a weather eye on the wheat situation? As of August 1, it looks as though there will be a downturn in wheat supplies for 1970/71—the first decline in 5 years.

The 1970/71 supplies are now estimated at slightly more than 2.2 billion bushels—off a bit from last year.

Demand is likely to continue strong in the current season. It therefore appears that the build-up in carryover stocks will be halted for the first time since 1966/67.

Pigs aplenty. The year is shaping up as one of the biggest in hog history. The price picture, however, looks shaky.

The 1970 pig crop has been estimated at almost 102 million head, biggest since 1943. About half—49.2 million—will come from farrowings in the June-November period, according to producer intentions. If realized, this would be the largest fall crop on record and 17 percent above the production in June-November 1969.

The upswing reflects a sharp jump in hog prices relative to those of corn in 1969 and early 1970. The hog/corn ratio last year, averaging 20.3, broke all records.

USDA livestock watchers expect producers will by and large follow through on their production intentions.

By midyear, producers had already bred about half their sows for the fall crop. However, sometimes bred gilts are sold for slaughter when market prices show signs of weakening.

Hog slaughter has picked up compared with last year, and is expected to greatly accelerate in the fourth quarter.

Current projections based on the recent Hogs and Pigs Report call for at least a 10-percent increase in marketings over the 1969 period. Prices are expected

to slide, and by late fall will be considerably below the summer level of around \$25.

This additional factor will have a depressing effect on prices: pork stocks in cold storage are abnormally large for this season.

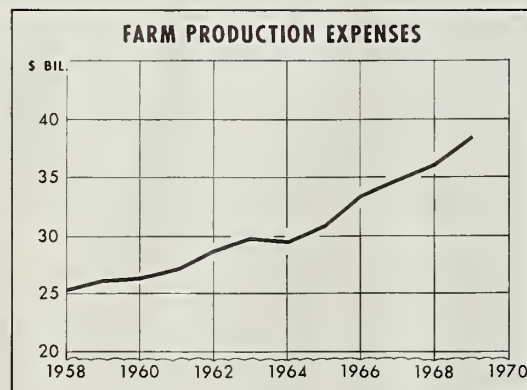
Weaker prices going into 1971 would cause a drop in the hog/corn ratio.

Depending on how low the ratio falls, the squeeze on producer returns might be sufficient to turn the tide of the expansion in hog output.

Of particular interest to consumers, pork prices at the meat counter this fall are likely to decline.

The high costs of farming. Cash receipts from farm marketings in the first half of 1970 were above a year earlier (see page 9).

But most of the farmers' gain in gross income was eroded by larger production expenses. Such as: a rise of 8-percent between June '69 and June '70 in both interest and taxes payable per acre, and a 7-percent rise in farm wage rates. Altogether, prices for production items averaged about 1½ percent higher in mid-1970 than a year ago.



In the vegetable kingdom. This year's pack of canned vegetables will probably be somewhat smaller than last year.

Acreage of vegetables for processing has been reduced again. The industry is continuing its

efforts to bring processed vegetable supplies into closer balance with anticipated demand. Carry-over stocks are already down from those a year ago.

Thus, total 1970 canned vegetable supplies will be down significantly from the high levels of the past two seasons.

Even so, supplies for the consumer will be ample. At the same time, the industry can expect to get prices averaging above the depressed levels of the last two seasons.

As for *frozen vegetables*, the 1970 pack may total 5 to 10 percent below last year's, and stocks are smaller. This combination, coupled with firm consumer demand, will probably tend to strengthen wholesale prices during 1970/71.

Meanwhile, increased supplies of *fresh* fruits, vegetables and potatoes are in prospect during upcoming weeks. They are expected to contribute to some further easing in food price increases later this year.

Memo to food budgeters. Food prices rose much less in the first half of 1970 than during the past year. For 1970 as a whole, prices probably will average about 5 percent higher than in 1969.

1969 Census of Agriculture. Unlike the '64 Census, no preliminary reports will be issued. Findings will be published as individual County and State reports, beginning February 1971. The U.S. summary will appear in mid-1972.

Also to be issued are various special volumes covering a range of subjects such as irrigation, agricultural services, and farm finance.

To get the complete publication schedule, and the forms for ordering the reports, write the Publications Distribution Section, Bureau of Census, Washington, D.C. 20233.

Foreign spotlight. U.S. agricultural *exports* rallied sharply in 1969/70 to hit \$6.6 billion. Final tally for *imports* during the year that ended June 30 was \$5.5 billion.

The leading export earners were soybeans, \$1,069 million; feed grains, \$995 million; wheat and flour, \$942 million; tobacco, \$540 million; and cotton, \$347 million.

Japan became our farmers' first billion-dollar customer, taking \$1.1 billion worth of farm products (\$1,089 million, to be more exact). Previous high was \$939 million in fiscal '67.

Feed grains dominated our sales in the Japanese market, scoring a value of \$336 million. They were followed (*in millions of dollars*) by soybeans, 251; wheat and flour, 136; cotton, 75; hides and skins, 61; and tobacco, 50.

Canadian wheat growers in the Prairie Provinces have slashed their 1970 plantings to an estimated 12.0 million acres from 24.4 million in 1969. This year's seeded acreage will be the smallest since 1914. Reason: the serious oversupply situation, along with the government's program for summer-fallowing former wheat acreage and diversion to forage crops.

Argentina, too, plans to cut back on its wheat plantings this fall. Because of more favorable price prospects for corn, sorghums, and oilseeds—and persistent dry weather in some areas—plantings will probably drop back 13 percent to 5.4 million hectares (about 13.3 million acres).

Brazil's farmers expect their fertilizer costs to be cut 40 percent with the opening of a new fertilizer complex inaugurated June 1. Daily capacity of the \$62-million Ultrafertil plant, near Santos, is about 1100 metric tons of nitrogenous fertilizers.

FARM

RURAL LIFE

MARKETING

CONSUMER

FOREIGN

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Wisconsin dairymen get rid of cattle wastes by converting the manure to a liquid. The system greatly enhances the fertilizer value . . . by 1.6 times, tests show.

What to do about the animal waste problem is high on the minds of livestock producers these days, particularly the dairymen of Wisconsin.

Not only are their herds getting bigger, but fewer cows are being pastured and more are being raised in confinement. The manure that once was naturally deposited on pasture and cropland now has to be transported there by men and machines.

For Wisconsin, No. 1 dairy State, this involves about two-thirds of all the manure its cows produce each year, or nearly 30 million tons.

A relatively new method of waste disposal is the liquid manure system.

It basically consists of tanks to store raw manure to which water has been added; machines to agitate the mixture; pumps to draw it out when the times comes to apply this fertilizer on cropland; and a tractor and spreader.

Where livestock is concentrated in small areas, the system can be practical and economical. Hog producers, for example, are using liquid disposal successfully.

Many Wisconsin dairymen also use the system with good results.

Is it always economical? The answer can be drawn from the findings of a survey of Wisconsin farms made by the University of Wisconsin in cooperation with the Economic Research Service. The typical cow on these farms weighed 1,400 pounds and produced about 20.4 tons of manure a year. Some of the farms in this survey had the liquid system exclusively; others used it in combination with conventional methods.

The most economical method, researchers concluded, depends on numerous variables—such as the value of manure, and how

Why waste animal wastes?



much farm operating costs are.

Liquid systems generally require a higher investment in equipment (twice that for conventional systems), but they also result in greater savings on labor.

In the Wisconsin study, the conventional system was found to be cheaper to operate for dairy herds of fewer than 50 cows. And

at the 50-cow level, costs over returns were the same for the two systems, taking into account the value of nutrients in the manure.

But for herds of more than 50 cows, liquid disposal became more economical, mainly due to the higher value of liquid manure. Its value averaged \$32 annually per cow, or at least \$12 more than a

well-operated conventional setup.

Liquid storage of a manure-water mixture actually improves the fertilizer quality of cattle excrement, since a high proportion of the nutrients can be recovered from both the solid and liquid wastes.

The system conserves about 75 percent of the original nitrogen and 90 percent of the phosphates and potash. Comparable figures for conventional disposal methods are 40 percent and 65 percent, respectively.

One ton of liquid manure has 1.6 times more nutrient value than the raw product.

In addition, liquid manure can be held for sustained periods—with little reduction in nutritive value—until soil and temperature conditions are right for spreading on fields.

The Wisconsin study group recommends emptying the storage tanks twice yearly in April and October. If farmers apply the manure to pasture and cropland in these months, they should get the optimum in fertilizer values, yet keep storage costs to a minimum.

This system is particularly advantageous in free stall barns where there is no bedding to absorb the liquid part of the excrement. The solid-liquid mixture is easily removed by scraping the wastes through slots in the barn floor and into storage tanks. (1)

Knowledge of New Tax Laws Could Save \$ in Next 4 Months

Farmers prefiguring their final tax bill for 1970 should not overlook those 1969 revisions in the Federal tax code, many of which went into effect for the first time this year.

The Tax Reform Act of 1969 contains nine provisions that deal specifically with reporting income from the farm, as well as numerous other changes that af-

fect all taxpayers.

Producers would do well to consult the new regulations before deciding whether to buy (or sell) a particular item between now and December—or whether it would be more advantageous taxwise to wait till 1971.

Two of the Act's provisions affect the reporting of income from sales of livestock purchased for draft, breeding, sporting, or dairy purposes.

Formerly, all such income could be treated as capital gains, which are taxable at the lower capital gains rate.

Livestock used in the farm business were specifically exempted from recapture of depreciation. Depreciation claimed in the past could then be deducted from ordinary income that is taxed at the usual rates.

Under the new law, the gain on the sale of livestock is to be treated as ordinary income, rather than a capital gain, up to the full value of previous depreciation deductions. This applies to depreciation taken after 1969.

Purpose of this change was to put livestock on the same tax base as other property used in business, depreciation on which is normally recaptured at time of sale.

Another reason for the change was that under the old law some livestock producers—who did not necessarily derive their principal income from farming or livestock—were using the depreciation allowance to offset their nonfarm, ordinary income. This practice resulted in substantial revenue losses to the U.S. Treasury.

A second provision of the 1969 Tax Act that also affects livestock used for draft, breeding, sporting, or dairy purposes, extends the holding period for certain animals before they can be sold and qualify for capital gains treatment.

The old law allowed a 1-year holding period. The new retention period for horses and cattle

in these categories is 2 years for stock acquired after Dec. 31, 1969. The holding period for other livestock remains unchanged.

One objective of the 2-year provision is to assure that cattle and horses are in fact being held for the purposes specified, rather than for sale in the ordinary course of business.

Too, the longer holding period is intended to discourage short-term investments in ranching by persons whose main business motive is to save taxes on their nonfarm income.

A third revision in the tax law has to do with taxation of indemnities paid to farmers for crop damage or loss.

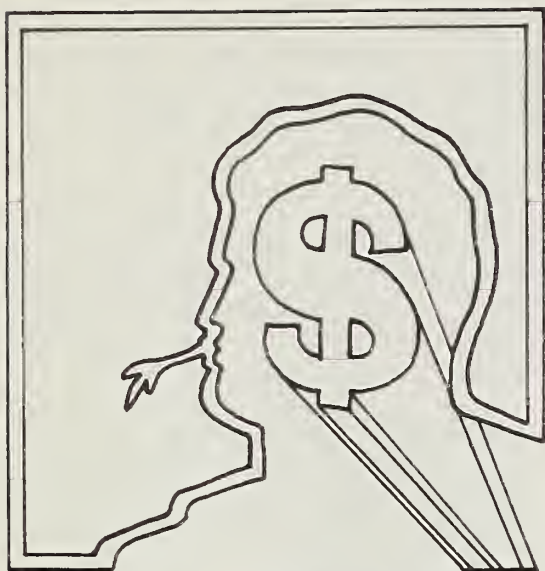
The old law required farmers who used the cash accounting method (reporting income when received and expenses when paid) to include crop insurance proceeds as a part of that year's income, even though the crop itself might not have been sold until the following year.

In effect, the farmer who customarily marketed his crop in the year following harvest was paying taxes on two crops in 1 year.

The 1969 Tax Reform Act eliminates this hardship by allowing farmers to defer the reporting of indemnities until the year following the loss.

However, such farmers must establish that under their usual practice, income from the damaged or destroyed crops would have been reported in the year following the year of loss. This provision was effective for 1969 and subsequent years.

Other sections of the revised tax law that affect only farmers deal with: limitation of farm losses, hobby losses, tax-free exchange of livestock of different sexes, recapture of soil and water conservation expenses, costs of developing citrus groves, and extension of the date for filing tax returns by farmers who do not file tax estimations. (2)



Farmers May Expect Different Money Lending Rules in 1970's

The route to farm credit in years hence will be taking some twists and turns.

According to one Federal Reserve economist, the ever-mounting credit needs of farmers are expected to catapult this Nation's farm debt from \$58 billion at the start of 1970 to about \$140 billion before the year 1980.

Farmers will be needing \$16 to \$18 billion in new money each year. Just to meet the interest payments alone—on new loans and those outstanding—would cost up to \$10 billion annually.

Would farmers be able to comfortably shoulder such a huge debtload?

Probably not, at least not under the present terms of borrowing and repayment.

Some observers, however, believe lenders will make certain adjustments to take care of the spurting demand for agricultural financing.

One way to do this is by extending the length of loans and cutting back on the rate of capital turnover or debt repayment.

To meet future financing needs, farmers may adopt financing arrangements that closely resemble "permanent debt." Such arrangements have long been commonplace in nonfarm industries.

For example, payment on the

principal might come due after the first 5 years, with only the interest payable during the life of the loan. After the 5 years, it might be possible to refinance.

With more loan funds tied up in longer term loans—and if the money markets remain relatively tight—farmers may look forward to wider use of variable or renegotiable interest rates. Federal land banks are already using them.

Bankers are also giving thought to extending substantial "lines of credit" to farmers, based more on repayment ability than on assets and collateral.

This would put lending on a more rational footing, though it would also require skillful management on the part of both the farmer and the banker.

Another turn in the credit picture of the 1980's: more one-stop credit services.

Farmer and lender, or lenders, will jointly work out the farmer's credit needs, whether short, intermediate, or long term in nature. And repayment schedules will be mapped on the basis of projected earnings.

Related to this, creditors will tend to lay out total credit "packages" for farmers, as opposed to farmers going to creditors for individual loans as the need arises. Borrowers would be given drawing rights on a line of credit, programed repayment, and a continuing arrangement for obtaining credit.

The channels of production financing will gradually shift, assuming the trend toward integrated production and marketing continues through the 1970's. More of the financing of production could well flow from—or at least through—the integrator. For instance, parent firms would get the credit funds and pass them along to their production subsidiary.

In another respect, the lenders of 1980 may be a different set of people than today. A higher pro-

portion of bank credit for financing production expenses is likely to come from the larger banks, including city banks.

At the same time, the competition for available funds will heighten. Thus, when farmers go to lenders, they will have to show a credit-worthiness equal to that of nonfarm borrowers . . . and demonstrate that they can pay the going rates of interest. (4)

More Cows in Dairy Herd Give Farmers an Economic Advantage

Dairy herds large enough to require two full-time men have several advantages over smaller herds.

Economic advantages include opportunities for lower fixed investment per cow in modern housing, feeding, and milking facilities than is possible with smaller herds.

These modern facilities permit more cows per man and less labor cost per hundredweight of milk.

Modern facilities along with a higher level of management result in easier work and fewer hours per man. And the higher income from a larger herd may pay for a good hired worker or provide the opportunity for the farmer's son to remain on the farm.

In order to provide reasonable labor returns to two men working full time, a dairy farm would have to have more cows than the average U.S. dairy farm.

A recent study of operations by 678 Wisconsin dairy farms suggests that a herd of about 76 cows is capable of providing full-time work for two men.

Average number of cows for all farms studied was 41. The 154 two-man farms in the study had an average of 76 cows per herd.

The total investment per two-man farm was \$214,282. Total farm investment per cow amounted to \$2,800, only 3 per-

cent less than for small herds.

Investments per cow in the two sizes of herds was about the same, since their housing, feeding, and milking facilities consisted primarily of stanchion barn, and hand-fed hay and bucket milkers. This method does not allow great reductions in per cow investment as herd size is increased.

However more of the larger herds are changing to free-stall housing, milking parlors, and mechanical bunk feeders because investments in facilities per cow decrease as the herd size grows.

A study in Minnesota showed that these investments per cow decreased from \$891 for a 26-cow herd to \$545 for a 75-cow herd.

The study indicated the major advantage of the large dairy farms was more production per man. Milk production per cow for large and small herds was about the same, but the large herds averaged two-thirds more milk per man. (5)

Northern Plains, Rocky Mountains Ranchers Go For Cow-Calf Profits

The "West" boasts dude ranches, beauty ranches, mink ranches, and horse ranches. But it's the cow-calf ranches in the Northern Plains and the Northern Rocky Mountain areas that seem to be fencing in the most stable profits.

Commercial ranches in these areas are important members of the Nation's cattle industry. They specialize in producing calves for further finishing and conditioning by cattle feeders in the Midwest and other areas.

The Northern Plains region comprises some 40 counties in southeastern Montana, northeastern Wyoming, and western South Dakota. The Northern Rocky Mountain area encompasses the greater part of 18 counties in southwestern Montana and east-

central Idaho.

A recent ERS study compares operations of the two areas. The research focused on ranches with breeding herds of 200 to 500 cows. It was found that in 1969, the most proficient operators derived their agricultural income from the sale of calves from an average herd of about 300 high-quality Hereford or Angus cows. The calving rate was better than 90 percent—much higher than in the East or Southwest.

Lots of land is needed to support these operations. Average spread in the Plains area was 11,500 acres, while in the Rocky Mountain ranches it was about 5,900, not including public grazing lands.

In both areas, range carrying capacity for summer grazing was found to be about the same, 30 acres per animal. Since the grazing season is shorter in the Rocky Mountain area, however, about 5 months of relatively heavy winter feeding was required there.

Around 1,300 pounds of hay normally met the requirements for a cow or yearling on Plains ranches but it took double that to feed the Rocky Mountain animals.

Total capital per ranch in the Plains area averaged \$429,630 in 1969. For the Rocky Mountain area the capital investment was \$312,430, excluding value of grazing permits and land rented on a per animal unit basis.

The Plains rancher had total cash receipts of \$44,280—for calves, steers and heifers, and other cattle. The Rocky Mountain rancher's receipts were \$44,125. Both were record highs.

Gross ranch income for the Plains rancher averaged \$44,793. Operating expenses were \$20,926. Net returns to operator labor and management, and capital: about \$24,000.

Gross ranch income for the Rocky Mountain rancher came to \$46,848. His expenses were \$23,274. Net returns: approximately \$23,600. (6)

Connecticut Bucks the National Trend in Egg Output and Sales

Connecticut poultrymen have expanded their share of U.S. egg output and marketings, while producers in many other States have lost ground.

Last year's U.S. egg production fell slightly from 1968, but Connecticut's output rose about 6 percent. The average size of Connecticut's laying flock and its egg output have continued to trend upward despite a production decline in many other States and a sharp expansion in the South and West.

Thus, Connecticut filled 1.3 percent of the U.S. egg basket in 1969, compared with 1.1 percent in the early 1960's. And in the first quarter of 1970, Connecticut production was up 7 percent from a year earlier, compared with an all-U.S. rise of 1.5 percent.

Connecticut egg sales in 1969, at a record \$43 million, were nearly double those in 1960. Eggs accounted for over a fifth of the State's cash receipts from farm products. Milk was the only commodity outpacing them in total sales value.

Egg prices were favorable to producers last year because of smaller supplies, strong demand, increased incomes, and relatively high prices for red meats.

For the U.S. as a whole, 1969 egg prices last year were the highest since the early 1950's. Producers got an average mid-month price of 40 cents a dozen. Connecticut producers received even more—an average of 58 cents a dozen. This was the highest average for any State—and by way of contrast, was more than double the price received by Nebraska producers.

Part of the Connecticut eggmen's bonanza is due, of course, to their location in relation to large population centers. This puts them in a position to handle more marketing services. (7)

Better, If Not Bigger, Varieties To Boost California Crop Yields

By 1980, California's yields of tomatoes for processing will probably be somewhere between 40 and 60 percent higher than the average 1961-65 yield.

Yield increases of around 30 percent or more are in store for California producers of lettuce, corn for grain, barley, grain sorghum, rice, and safflower. And asparagus yields can be expected to rise between 7 and 11 percent in the next decade.

The above projections emerge from a recent study of costs and yields for production of California's 15 major field crops and vegetables.

The study was a joint project of the Economic Research Service, and the University of California Agricultural Experiment Station.

The research was conducted as a base for a broader project concerning regional resource use and production patterns for 95 agricultural areas in California.

Double cropping operations were involved in the appraisal of cost and yield data. Moreover, 19 different plant climates and 13 different soil categories had to be considered.

Estimated yields for 1980 are based on published data, statistical projection of trends, and the judgment of commodity, climate, and soil specialists.

With three exceptions (tomatoes, asparagus, and alfalfa), the specialists' estimates coincide or fall somewhere in between the estimates reached through other methods.

In the case of tomatoes, the commodity specialists count heavily on improved varieties to cut down present waste that goes along with mechanical harvesting.

Changes in plant structure envisaged by commodity specialists include the development of new dwarf, double dwarf, and triple

dwarf varieties that will have a tremendous impact on crop yields.

Technicians generally feel, for example, that even the recent large increases in grain sorghum yields reflect only the "first generation" of hybridization, and improvements are inevitable.

Development of more effective growth regulation chemicals may also be of importance. And even without the above factors, 1980 yield levels can be raised by improved management alone. (8)

Profits From Sunflowers Pivot On Switching to Hybrid Seeds

Sunflower producers may yet be able to establish an opening wedge in the U.S. market for oilseeds, suggests a report from ERS economists at the University of Georgia.

But to do this, growers would have to concentrate on using the highest yielding hybrid varieties, or else sunflower profits will continue to be marginal alongside the returns from alternative crops such as cotton or peanuts.

Sunflowers are a big money-maker for farmers in many countries where there is a good demand for sunflower oil.

This oil would also probably meet a good demand in the United States, if sufficient supplies were available.

Certain properties of sunflower oil make it attractive for use in several food products.

A highly stable cooking oil, it can be reused several times for fried foods without developing off-flavors. This is not the case for certain other oils unless they are specially processed.

Sunflower oil also has a high ratio of polyunsaturated fats to saturated fats. The latter, many doctors believe, contribute to the formation of unwanted cholesterol in the body.

Pricewise, this oil would probably cost more than soybean oil,

but less than corn, peanut, and safflower oils.

Nevertheless, producers who have tried to grow sunflowers for the oil have not had good results from a profit standpoint.

In 1967, 90,000 acres of sunflowers were sown in Minnesota's Red River Valley in what was the first large-scale attempt to produce sunflower-for-oil in this country. This was followed a year later by plantings of 40,000 acres in the Southern Cotton Belt.

Gross returns to producers have averaged only \$30-\$38 to the acre, which barely covers expenses in some production areas.

Cultural problems with this relatively new crop are partly to blame for the narrow profits. In addition, yields are low in comparison with those of competing crops in the regions where sunflowers are raised.

In the Red River Valley and the Southeast, producers report yields of around 1,000 to 1,300 pounds per acre.

By switching to the higher yielding hybrid varieties—which are now available—it would be possible to boost yields to 2,000-2,500. At the same time, hybrids have a greater oil content than the open-pollinated type.

Costs of using hybrids would rise as well, due to the higher price of seed, higher fertilization rates, and a need for more complete control of weeds and insects.

Total costs for producing the hybrids with high oil content are estimated at \$40-\$50 per acre, exclusive of land, versus present costs of \$35-\$40 in the Cotton Belt and \$25-\$30 in the Red River Valley.

The benefits of using hybrids would perhaps outweigh the cost increases. In a number of farming areas, sunflowers might be able to compete with corn, soybeans, sorghum, and small grains. The crop would be less competitive with cotton because of government programs for this fiber. (9)

FARM FACTS

Out of a total population of over 200 million, 1 out of 20 Americans lives on a farm.

The Nation has 2.9 million farms and a farm population of 10.3 million. Of these farm residents, 1 million are Negroes and persons of races other than white.

The U.S. farmer produces enough food and fiber for 45 people—about 39 at home and 6 abroad. (A decade ago he supplied the agricultural needs of only 24 people.)

Crops were harvested from a total of 294 million acres in 1969—about 13 percent of total U.S. land area. However, 334 million acres were actually used for crops, since some acreage is double-cropped.

The top three crops, by volume, in 1969 were corn (4.6 billion bushels); wheat (about 1.5 billion bushels); and soybeans (1.1 billion bushels.)

In 1969 average yield per acre for corn was 83.9 bushels per acre; sorghum, 55.2 bushels; wheat, 30.7 bushels; soybeans, 27.3.

Farmers' gross income was \$54.6 billion in 1969. Net farm income was \$16.2 billion—or \$5,437 per farm.

After taxes, farm people's income from all

sources averaged \$2,431 per person in 1969—about 77 percent of earnings by nonfarm residents.

Labor used on farms totaled about 6.9 billion man-hours in 1969. Of this 3.4 billion was to plant and harvest crops and 2.4 billion was for care of livestock.

Tractors on farms numbered about 5.6 million on Jan. 1, 1970. The per tractor average was 43 horsepower.

A total of 12 million tons of plant nutrients (nitrogen, phosphorus, and potassium) were used in the U.S. and Puerto Rico during the year ended June 30, 1969. Approximately 15 percent of this was for nonfarm use.

Average fertilizer application per acre in fiscal 1969 was about 40 pounds nitrogen, 12 pounds phosphorus, 19 pounds potassium.

Output of about 1 of every 5 acres harvested is exported.

Exports of U.S. farm products added up to \$6.6 billion during the year ended June 30, 1970. Imports of agricultural products were valued at \$5.5 billion.

Food grains, feed grains, and soybeans each account for around 15 percent of our total export earnings. (10)

Inflation Held Down Net Farm Income in First Half of 1970

Rising costs of farm production during January-June 1970 have diminished the prospect of a gain in net farm income for the year as a whole.

Gross income—reflecting a 5-percent jump in prices for farm products and a slight increase in volume of farm marketings—rose to over \$56 billion in the first 6 months (seasonally adjusted annual rate) from \$54 billion in the first half of 1969. Production expenses, however, also went up \$2 billion to \$40 billion.

Most of the increase in costs is attributed to a 4-percent rise

in prices for production items, interest, taxes, and wages.

Cash receipts from livestock and livestock products totaled \$14.7 billion during January-June, compared with \$13.5 billion in the '69 period. Crop receipts fell \$100 million to \$6.4 billion due to smaller marketings. (11)

Mink Now Added To Listings On USDA's Agricultural "Big Board"

Among this year's statistical events is USDA's first annual report on U.S. mink numbers and pelt production.

The National Board of Fur Farm Organizations and mink

ranchers are cooperating with the Department in providing the data.

Summing up the 1969 U.S. mink situation: 2,635 commercial mink ranchers harvested nearly 5¼ million pelts; they bred about 1.4 million mink to produce kits in 1970.

Over 60 percent of 1970's prospective mink mothers fall into the color classes "standard" and "pastel."

Wisconsin leads in pelt output, with about 1,750,000 skins. Minnesota, Utah, Washington and Ohio follow. These five States accounted for 67 percent of 1969 U.S. production. All but eight States, mostly in the South, contributed to the balance of the Nation's total mink crop. (3)

Rural America: Community Service Check List



It takes more than a lovely view to attract new people to a rural area. If community services are lacking or inadequate, prospective new citizens may never arrive.

One of the main questions facing a rural community in planning a development program is: Will the schools, hospitals, police and fire protection, and other community services be adequate for the increased population that might just arise from a plan-come-true?

Development is usually intended to attract people into the community. In any case, it's apt to create jobs and other opportunities that will induce youth and those already in the area to stay.

When planning for development, there is a tendency to concentrate mainly on ways to attract new industry and retail business and thus create a flourishing community. This course, however, often bypasses the very important overlook of community services that will be needed by a larger population with progressive ideas.

Many of the people communities hope to attract may have been accustomed to better facilities than some rural communities can offer.

New citizens in a town expect schools to be good enough to prepare their children for college.

They take it for granted that a good library will be close by.

They expect adequate police and fire protection.

They assume that the services of health facilities, hospitals, and doctors are available for them and their families.

Some of these community services are the very ones that are deficient in rural areas. And a community can't hope to draw and hold new people if it lacks any of these amenities of community life.

Many of these services have to be planned well in advance, as tax hikes to finance improvements

are often a necessary prelude to subsequent benefits that may accrue from a development program.

Many recent experiments have been undertaken to calculate rural development potentials. But there is still no sure way of judging how adequate a community's existing services would be if de-

Auburn Rallies

When the furniture factory in Auburn, Ky., burned to the ground for lack of water to quench the fire, the community's water problem was all too clearly illuminated. Since the factory had been the main source of jobs, unemployment in Auburn jumped 8 percent.

Today water is no longer a problem. Federal financing and a good deal of local initiative made it possible to create a new water district and improve the existing water system.

The furniture factory was rebuilt — and has since been enlarged.

velopment brought on a rush of new people.

If you are a development planner evaluating the needs of your community, you have perhaps already found out that there are two basic ways of getting to the core of the matter: (1) by comparing your community with other communities, and (2) by drawing upon the knowledge of experts who have studied community problems.

Combining both these methods, any deficiencies of your community are likely to show up in one of the following areas:

EDUCATION

Every community is expected to be able to educate its children from kindergarten through at least the 12th grade. Furthermore, a school system should provide a diversified curriculum and

qualified teachers.

The quality of education is usually linked to the levels of teachers' salaries, and the amount spent on buildings and equipment. The size of a school district is also a key, since it must be big enough to make quality education economically feasible.

Different States recommend widely varying school district sizes. The Vermont State Board of Education, for example, recommends a 2,000 to 6,000 pupil base for a school district. The Ohio Master Plan, on the other hand, recommends a base of 25,000 to 35,000 pupils.

One study of the American high school suggests that a school system should be large enough to have a high school graduating class of at least 100 pupils. This would mean an enrollment of about 2,000 pupils, and a school district population of about 10,000.

BANKING AND CREDIT FACILITIES

Any community with potential for progress must have at least one full-service bank. In addition to usual services—checking and savings accounts—this bank must provide access to credit for private citizens and businesses.

POLICE AND FIRE PROTECTION

Costs per person for police and fire protection for communities of less than 50,000 generally go up as the size of the community increases.

Factors other than the size of the community are important in planning for the protection of lives and property.

The International City Managers Association points out that the adequacy of police protection depends not only on staff and financing but also on the amount of crime, area covered, geographic peculiarities of a community, nearness to a city, location of schools and hospitals, the presence of rivers or lakes, and the number and direction of streets.

The National Board of Fire Underwriters has developed a grading schedule to measure a community's fire defenses. It takes into account such things as water supply, condition of structures, fire alarm system, fire prevention, building laws, and climate.

PROFESSIONAL HEALTH PERSONNEL

Availability of medical services is something nearly everyone

films, tapes, records, staff, and other resources of a modern library. The American Library Association (ALA) recommends a minimum of 50,000 persons, but other studies put the figure at 100,000 or more.

Costs of library services generally go down as the number of users goes up. The average cost for library services in 1967 was \$2.79 per person. But costs per person for a countrywide system

water will probably be able to meet the needs of a larger population at a relatively low cost. Some communities, however, may have to invest heavily in treatment and distribution systems—especially if development brings in industries that use a lot of water.

SEWERS

Substantial increases in population would make it necessary for many communities to spend sizable sums for sewage disposal and sanitary treatment of human wastes.

Outlays would be especially large for communities that have hitherto relied on septic tanks. Conversion to public facilities requires an average of about 12 feet of sewer pipe per person.

Sewer costs vary considerably depending on the density of settlement, topography, climate, and the type of sewage facilities. Costs of treatment centers for 1,504 local government projects built with Federal help from 1956 to 1963, ranged from \$4.38 to \$34.70 per person.

The foregoing provides a rough, rule-of-thumb base for evaluating a community's facilities to pinpoint areas that may need study in planning for development.

In planning, community leaders should not overlook the possibilities of cooperating with neighboring localities to upgrade deficiencies that are common to an area.

Consolidated schools, interlocal fire protection, and water and sewer systems are outgrowths of this cooperation. Other examples are libraries, airports, hospitals, economic development projects, and civic buildings.

(This is the second in a series of four articles about rural America. The next two will cover cooperation among neighboring localities, and public and private programs available to help in development.) (12)

Size of community	Policemen		Firemen	
	No. per 1,000 population	Cost per person	No. per 1,000 population	Cost per person
Less than 2,500	1.2	\$ 6.40	0.2	\$ 2.47
2,500 to 4,999	1.8	10.41	0.4	3.63
5,000 to 9,999	1.8	11.72	0.7	5.48
10,000 to 24,999	1.7	12.36	1.1	8.22
25,000 to 49,999	1.8	13.72	1.6	11.93
50,000 to 99,999	2.0	15.24	1.7	13.45
100,000 and over	2.8	24.43	1.7	14.71

thinks about when he contemplates moving to a new community. One person out of every 10 will be hospitalized during a given year. On the average each person visits the doctor 4.5 times a year and the dentist 1.6 times.

For the country as a whole, there is an average of about four hospital beds, three nurses, and one M.D. for every 1,000 persons, and about one dentist for every 2,000.

LIBRARIES

A surprisingly large population base is required to provide the books, pamphlets, documents,

serving 50,000 people may run 30 percent higher than for a metropolitan system serving 200,000.

The ALA suggests that communities of less than 50,000 can upgrade their libraries by joining other systems or forming cooperatives. County bookmobiles and State library services are other possible measures.

WATER

Americans use an average of 120 gallons of H₂O each day. Over a 10-year period the public investment in water systems costs an average of \$275 per person.

Communities that have ample

Haze Over Tobacco Row

As tobacco growers and dealers in cigarettes filter out the facts, here's what they see: smoking per person down, taxes up, anti-smoking publicity strengthened.

With rising prices and persistent anticigarette publicity, the future for tobacco products is somewhat hazy.

How the picture shapes up will depend largely on cigarette trends, since cigarettes are way up front when it comes to tobacco usage.

About 80 percent of all tobacco used in the United States is in the form of cigarettes.

Over \$9 billion a year is rung up in U.S. cigarette sales. This is about 1½ percent of our personal earnings after income taxes are

deducted.

In addition, most exports of unmanufactured tobacco go into cigarette manufacture abroad. These exports make up 8 percent of the value of all U.S. agricultural exports.

The magnitude of the cigarette business is unquestionable. Yet from a marketing point of view, tobacco row is not all smiles.

True, cigar consumption last year recovered from a 5-year low. This year's usage is expected to show a further increase. Sales of smoking and chewing tobacco will probably be up slightly.

Exports of tobacco may reach the 657-million-pound level of last year (farm sales weight). The bulk of these exports go for cigarette manufacture abroad. Overseas cigarette sales are on the rise

with increasing population and income gains.

But when cigarette dealers and tobacco growers filter out the facts they have some reason to be concerned about what they see.

U.S. smokers are definitely cutting down on their cigarette consumption. Per person use of cigarettes by persons 18 years old and older has fallen off:

1964—4,194	1967—4,280
1965—4,258	1968—4,186
1966—4,287	1969—3,993

The only previous declines in recent history were in 1953 and 1954 when the smoking link with lung cancer was first publicized, and again in 1964 when the Surgeon General's first report on smoking and health was published. But the current downdrift



is the first of prolonged duration.

Despite the decline in per person consumption of cigarettes, the gain in population—about 11½ percent a year—has somewhat mitigated losses in total cigarette usage.

U.S. adults over 18 years old (at home and in our overseas forces) smoked a record total of 549 billion cigarettes in 1967. In 1968, 545½ billion. In 1969, 529 billion.

This year, it now looks as though U.S. smokers may limit themselves to around last year's total or slightly under. If the total reaches 529 billion, it would be 4 percent below peak usage in 1967.

Traders of cigarette tobaccos face loss of their prime marketing tool. Starting Jan. 2, 1971, radio and television ads for cigarettes will be banned as a result of the 1970 Public Health Smoking Act.

Cigarette packages must carry a strengthened warning label starting Nov. 1, 1970: "Warning: The Surgeon General Has Determined That Cigarette Smoking is Dangerous to Your Health."

Smoking-health publicity was probably the chief reason that consumers cut their 1969 cigarette purchases more sharply than might have been expected. The radio and TV time devoted for anticigarette advertising last year was about one-third the time for paid cigarette advertising.

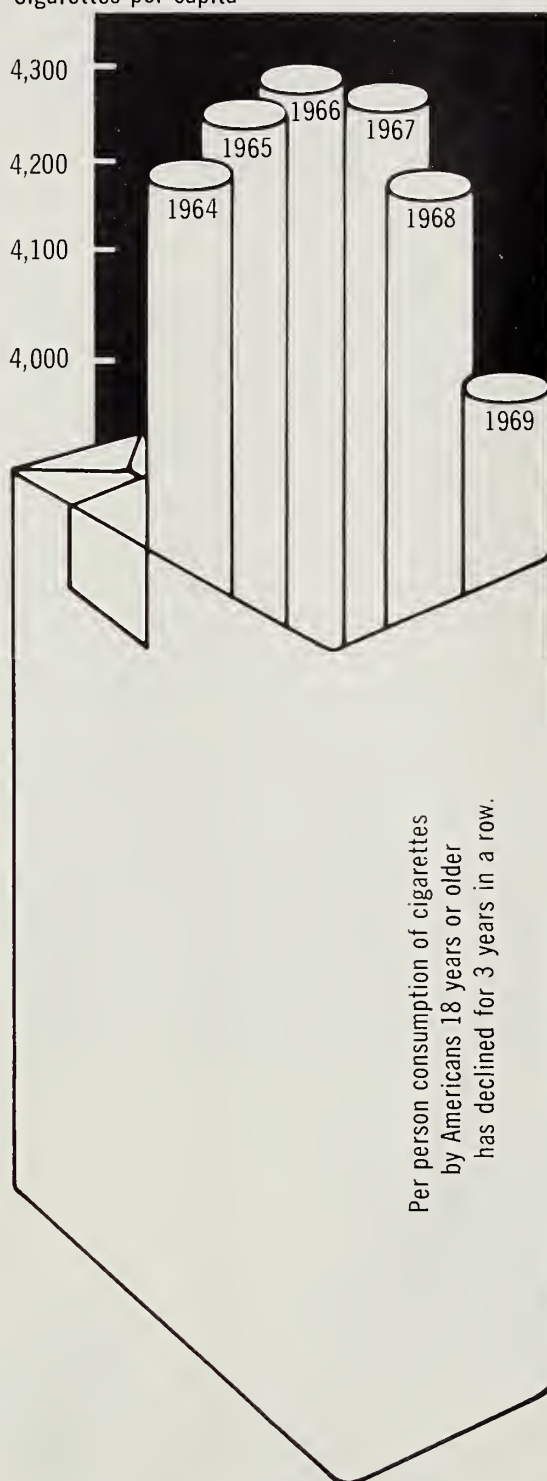
The new, more stringent smoking curbs may spur the industry to step up research leading to use of new technologies in tobacco growing or manufacturing that would mean a safer cigarette.

Growers see less and less tobacco going into cigarettes. Use of flue-cured tobacco in the U.S. in the 1969/70 marketing year is expected to have fallen to a 26-year low 3 to 4 percent below 1968/69 usage.

Flue-cured is the Nation's biggest tobacco crop and is primarily

Cutback in Cigarette Smoking

Cigarettes per capita



used in cigarette manufacture. Thus, reduced use is linked to the quantity going into cigarettes.

The amount of tobacco (all types) used per cigarette has declined almost a steady 2 percent yearly since the mid-1950's.

The takeover of filter-tips is a major factor. They now command 78 percent of the cigarette market, versus a 1955-59 average of 36 percent.

Except for 100-millimeter cigarettes, filter-tips have a shorter

tobacco column than non-filters; and the filters have been lengthening with the years. At the same time, cigarettes have been getting slimmer.

Processing technology enters in, too.

For example, use of sheet (alias "homogenized") tobacco is on the rise. It is made of crumbled or powdered leaves and stems (leaf midribs). They are pulverized, mixed with a vegetable adhesive, and pressed together. Oriental or other tobaccos can even be mixed in, so sheets become blends.

Higher cigarette prices make it easier for some smokers to cut down.

Retail cigarette prices have surged ahead. Last year the price index for filter-tip king-size cigarettes was 5 percent above a year earlier. This year's gain is averaging 9 to 10 percent.

Most of the increases stem from hikes in manufacturers' wholesale prices and increases in cigarette taxes by 26 States and the District of Columbia during the past 2 years.

All States tax cigarettes. The tax rate averaged 10½ cents per pack in May 1970—up from 8.6 cents last year and 7.9 cents 2 years ago. The average is still going up because of recent rate raises taking effect in the second half of 1970.

The Federal excise tax has been 8 cents a pack for many years. In addition, taxes are imposed by many local governments that are pinched for revenues and wheezing from pressures of inflation and tight money.

As taxes go up, so do prices. Cigarette manufacturers increased wholesale prices 15 percent over the past 2 years on all major brands (excluding Federal excise tax).

Smokers may disregard a penny-or-two price rise. But they tend to cut down, and some even cut off, when the drag on their budgets becomes too heavy. (14)

Price Spreads Reflect the Dietary "Oil Change" of Some Americans

The shortening, salad, and cooking oil industry is the largest domestic market outlet for edible vegetable oils, and an increasingly large outlet for animal fats.

During 1969, about 62 percent of the domestic production of soybean oil, 54 percent of the cottonseed oil, 14 percent of the coconut oil, 77 percent of the peanut oil, 60 percent of the corn oil, and 22 percent of the safflower oil was used in producing shortening, and salad and cooking oils.

The shortening industry took, in addition, about 25 percent of the lard production and 90 percent of the production of edible beef fats.

Lard use has had ups as well as downs. Animal fats have in general lost their predominant position in the "visible fat" portion of the American diet during the past 30 years.

This is probably because American housewives have become more diet and cholesterol conscious in recent years. Many have shifted from solid fats to liquid fats, and from animal fats to vegetable oils—though the correlation between saturated fats, cholesterol and heart attacks has not been established.

Soybean oil dominates the shortening field. But corn oil and safflower oil, too, have become increasingly popular in cooking, salad oils, and in margarine, because they are high in linoleic acid—a polyunsaturated fatty acid.

Shortening manufacturers now process and market growing quantities of liquid shortenings based on liquid or lightly hydrogenated vegetable oils. They processed about 3.1 billion pounds in 1969, compared with 1.8 billion pounds in 1959. Production of solid shortening was still greater than liquid production in 1969, but the difference was minimal.

Price spreads reflect shifts in the relative importance of the major oils used in shortening and the changing prices of crude oil. They reflect also the increased cost of labor, materials, and service used in production and marketing.

In addition, striking price differences are associated with brands, types of ingredients, type of retail outlets, and regional consuming areas.

On the average for all, shortening sold in all types of retail outlets in 1969, the wholesale price spread (the difference between the average mill value of crude oil in a 3-pound pack of shortening and the price received by wholesalers), was 39.9 cents for a 3-pound pack.

The retail price spread (the difference between wholesalers' prices and retail prices) was 13.7 cents. Both the wholesale and retail price spreads widened between 1947 and 1969. (15)

Confidence in Soybeans' Future Spurs Increase in Crush Capacity

Buoyant prospects for soybeans are stimulating big expansion of the industry that processes soybean products worth over \$2 billion annually.

In anticipation of steady growth in 'bean output and in markets for the oil and meal, U.S. processors indicated in a recent industrywide survey that they plan to expand their total crushing capacity 15 percent by the spring of 1971.

This would enable an annual crush of 885 million bushels, or roughly 85 million more than the crushing capacity at present. Over the past 20 years, average capacity rose 28 million bushels, or about 7 percent, a year.

The larger capacity will be achieved not only through expansion of existing plants but also by the addition of new crushing

facilities now being built or about to be constructed.

Expansion is being encouraged by two factors in particular: highly favorable processing margins this year and a near-capacity crush. Also, it reflects industry's confidence that worldwide demand for oil and meal will continue strong throughout the 1970's.

The crush for the 1969/70 marketing year that ends August 31 will break all records. At an estimated 725 million bushels, it's 119 million above the 1968/69 crush—the biggest gain ever registered in a single year. Processors are operating at over 90 percent of capacity, compared with around 80 percent during the 1950's and 1960's.

Also at an alltime high, processor margins this marketing year are averaging over 50 cents a bushel, due in large measure to an unprecedented demand for soybean products, both here and abroad.

Processors' margins fell steadily from 1950/51—when they averaged 27 cents per bushel—to 1968/69 when margins averaged just 12 cents.

One of the reasons for this decline was the heavy investment by industry to accommodate a huge increase in soybean output.

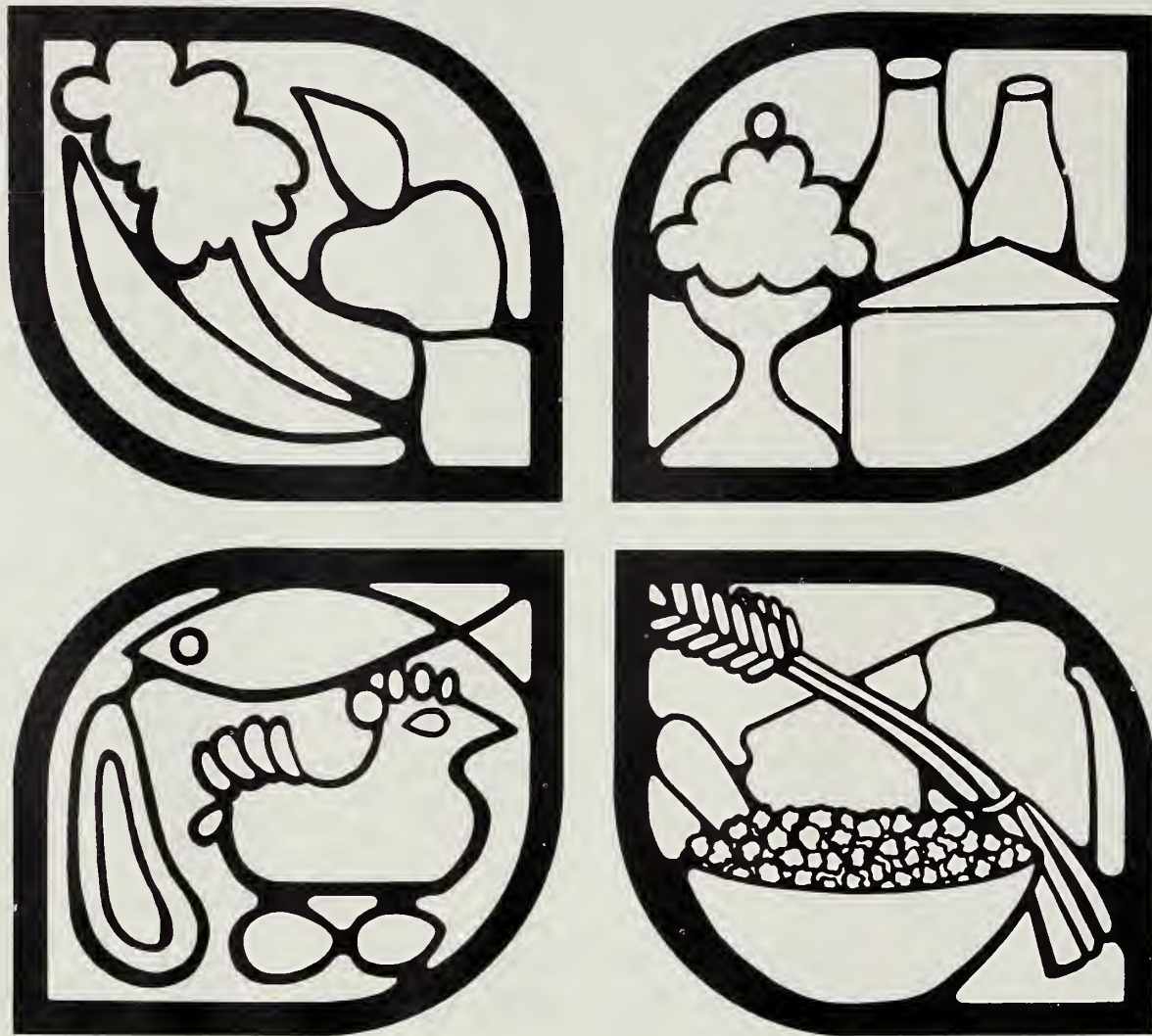
To do this was costly. Processors had to upgrade efficiency by converting from hydraulic and mechanical screw presses to extract oil, to the more efficient method of extraction by solvents.

Average oil yield then climbed to 10.7 pounds per bushel in contrast to 9.7 pounds in 1950.

Also in the fifties and sixties the processing industry grew from a large number of small and inefficient mills, independently owned, into a great industrial complex that is today controlled by relatively few firms.

In the early 1950's some 80 firms ran nearly 200 mills; about 55 concerns now operate 130 mills. Many are integrated. (16)

Eat the basic 4 foods every day.



Alerting our affluent Nation to its poor eating habits is the goal of a crash campaign underwritten by food manufacturers and traders.

Alerting our affluent Nation to its poor eating habits is the goal of a crash campaign underwritten by food manufacturers and traders.

Selling a good 5-cent cigar or a really better mousetrap doesn't take much salesmanship.

But persuading more than 200 million people to buy nutritious food is something that America's salesmen have not yet been able to do. The eating habits of the United States are evidence.

Recent studies reveal that many Americans are undernourished—though an abundance of healthful foods is always near at hand.

Some of these people, to be sure, have too little money to provide themselves an adequate diet. Yet a surprising number of our poorly fed citizens are relatively affluent, or even well-to-do.

Regardless of income, too many of us have poor eating habits, and too few of us really know what foods constitute a nutritious diet.

This was clearly brought out at a White House Conference on Food, Nutrition and Health last December. Conferees agreed that the most pressing need was a consumer education program aimed directly at the poor. But they recognized that long-range interests

of all Americans call for better knowledge about food nutrition and health, and how to translate this know-how into buying skills.

The Food Council of America—an intra-industry group—has therefore been reactivated.

During September and October it will carry out a food awareness campaign of unprecedented scope.

The selling slogan of the campaign is "Eat the Basic 4 Foods Every Day." And the campaign symbol which will confront most shoppers somewhere, sometime during the next 2 months pictures the following four basic food groups that ensure a daily, well-balanced diet:

Meat group

Beef, veal, pork, lamb, variety meats, poultry, fish and shellfish, eggs.

Alternates: Dry beans, dry peas, lentils, nuts, peanut butter.

Value: High-quality protein: and, in varying degrees, iron, niacin, riboflavin, thiamine (especially in pork).

Daily servings: 2 or more.

Vegetables and fruit group

Citrus fruits or other fruits and vegetables—such as broccoli, cantaloupe, peppers, fresh strawberries—for vitamin C (ascorbic acid).

Dark-green or deep-yellow vegetables for vitamin A.

Alternates: All other vegetables and fruits, including potatoes.

Daily servings: 4 or more.

Dairy product group

Milk in any form, cheese, ice cream.

Value: High-quality protein, riboflavin, other vitamins and minerals. Whole milk and some fortified milk also offer vitamin A. Most homogenized and evaporated milks also carry vitamin D.

Daily servings: 3 to 4 cups for children; 4 or more for teenagers; 2 or more for adults. When cheese and ice cream replace milk, more servings are needed to provide the calcium equivalent of milk.

Bread and cereals group

Bread, cereals (ready-to-eat or cooked), cornmeal, grits, crackers, macaroni, rice, spaghetti, flour, quick breads, other baked goods.

Value: Protein, iron, several of the B vitamins, and food energy (calories).

Daily servings: 4.

In general, both young and old alike require the same number of basic food servings—though the size of the helpings may vary as our age and weight dictate.

The food groupings were formulated by USDA. They are basic-

ally the same as the former seven groups worked out by the Department nearly half a century ago.

Teenagers and young married people, of course, are not old enough to remember the depression days of the early 1930's and World War II days of the early 1940's. Others, old enough to remember, have apparently forgotten or have lost interest in getting the best nutritional value for their dollars.

Economic Research Service analyses of consumers' buying habits and of consumer response to programs aimed at better nutrition indicate this wide gap between what kind of foods we *should* buy and those we *do* buy. (17)

The Sharp-Eyed Food Shopper Eyes Goods in Variety of Ways

Most everyone has been admonished not to judge a book by its cover—or, by implication, a product by its package.

But the package—or at least the information on it—sometimes helps buyers make a choice.

Brand, color, grade, ingredients, inspection, size, price, weight, type, and date of manufacture: these are some factors other than the container itself that may influence buyers. To find out how much attention food buyers actually pay to these factors, a cross-country survey was recently made of about 3,000 homemakers.

Many of the interviewees said they looked at a label. Yet 20 to 36 percent said they did not—or they only looked long enough to identify a product, not to garner more exact information.

Few interviewees reported looking for a date on the package that would indicate when a product was manufactured or packaged. This is easily understood because dates appear on few foods, and consumers aren't used to looking for them. And when foods *are* dated, the code used by

the trade is often difficult for the uninitiated to crack.

Fewer than 10 percent of the shoppers paid attention to the color of a product.

About 29 percent reported they looked at grades before buying eggs, 26 percent in buying beefsteak, and under 10 percent when it came to bacon, butter, fresh milk, fresh potatoes, and whole turkey. (There are no Federal grades for bacon and fresh milk. Fresh potatoes are seldom sold by grade.)

Brand names made little difference to most shoppers, except when buying butter, white bread, fresh milk, and whole turkey.

Few shoppers looked to see if a product was government inspected—about 11 percent of beefsteak buyers and fewer than 4 percent when buying other commodities. (Beefsteak, bacon, and turkey are the only products in the study that are Federally inspected for wholesomeness.)

Less than half checked price.

Size was a consideration to 28 percent of purchasers of eggs; 18 percent, of turkeys; and under 12.4 percent, of fresh potatoes. (18)

Mini Smoke Rings

Figures don't show how many ladies reach for a cigarillo, but somebody's reaching for these short, slim cigars more often.

The latest data shows that cigars or cigarillos smoked during 1969 averaged out to 125 per capita for the male population 18 years and older.

Be this as it may, cigarillo sales for 1969 were 34 percent (2.6 billion) of the total market for all types of cigars. This was more than the 30.5 percent for 1968 and came close to tripling the 13½ percent share at the start of the 1960's.

Cigarillo-size cigars, incidentally, weigh more than 3 pounds but not over 10 pounds per 1,000. Regular, or large cigars weigh about three times as much (19)

Though paved with problems, the route traveled by Greece resulted in one of the highest postwar growth rates in farm production among the less developed nations.

Gnarled old olive trees. Ruins that influenced the world's architecture. Hillside studded with timeworn marble statues. To many of us these are the images "Greece" conjures.

But Greece is very much alive. About half of its 8 million people live off the land. Their story, prefaced by problems, is a story of remarkable strides in postwar agriculture.

The disruptions associated with World War II and internal conflicts had caused Greece's farm production to descend to less than 60 percent of the prewar level. It was not until 1950 that agricultural output began to move forward.

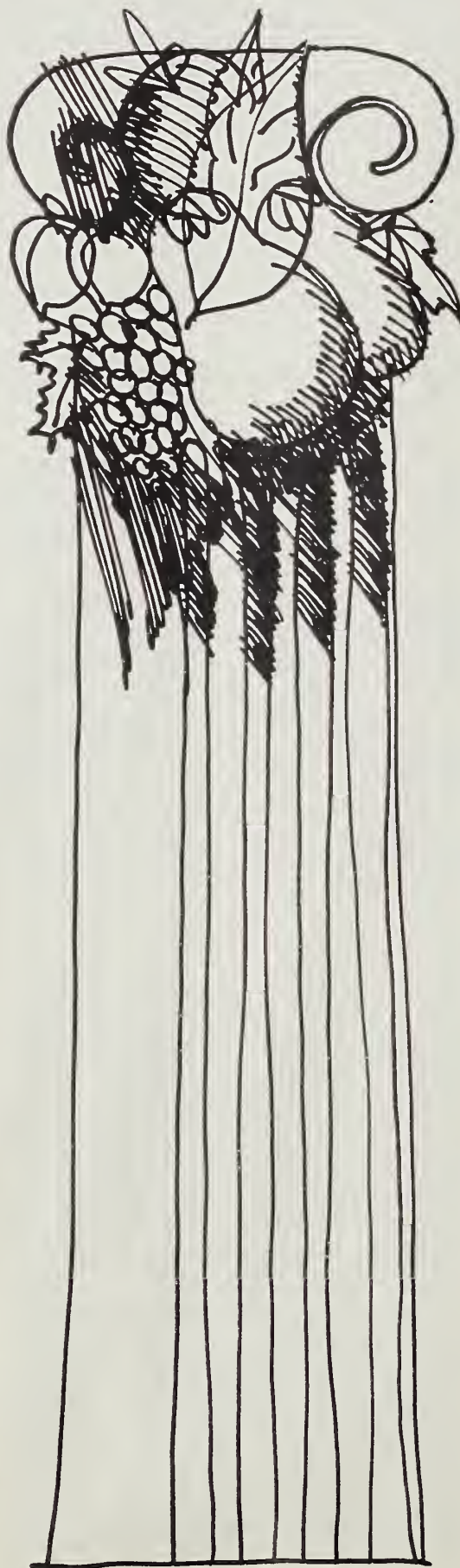
Between 1947 and 1967, the country's farm output went up by an annual average of 4.9 percent, in contrast to 2.8 percent for the less developed countries as a group between 1950 and 1968. (Greece is classified as less developed.) Most of the production gains were brought about through land development and improvements in yields.

The country's population in this period grew only 0.8 percent annually. This low growth rate, combined with the impressive gain in agriculture, resulted in a per capita increase in farm output of 4.2 percent a year—more than 12 times the average for the less developed world. Among the less developed nations, only Israel had a faster per capita growth than that of Greece.

Agriculture was a propelling force in the strong upward movement of the overall economy in the 1950's and 1960's. During this period the gross domestic product increased at the rate of over 5 percent annually.

While filling the mounting de-

Along the Agrarian Way in Greece



mand for food—spurred by rising incomes—agriculture also provided larger volumes of commodities for export. Export earnings, in turn, enabled higher imports of certain agricultural products that could not be produced domestically.

This progress was achieved against a backdrop of inherent obstacles to development.

Greece is a relatively small country of some 51,000 square miles, about the size of the State of Arkansas.

Only a third of the land is suitable for farming. Virtually all the arable land is already cultivated. Thus, any increases in productivity must come about through intensification, rather than expansion of cropland.

Most of the farms are small and fragmented. The average farm has fewer than 8 acres of cropland and many holdings provide only subsistence for the farmer and his family. This type of farm discourages use of large machines.

How did Greece, despite the obstacles, succeed?

A combination of characteristics were combined into a mix that largely offset many of the country's unfavorable endowments and actually favored agricultural development. Among them were the very low rate of population growth; strong foreign assistance; a population homogeneous in origin, language, and religion; strong determination to succeed; and a relatively stable government.

In addition, the Greek government itself took specific steps in the following areas to speed up and encourage agricultural development:

—*Price supports* to encourage production of certain crops. Wheat prices, for example, were jacked up in the development period when the objective was self-sufficiency. Once this goal was reached, prices were adjusted downwards.

—*Production incentives* to accomplish specific ends. As examples, farmers got bonuses for growing cotton on irrigated land, for harvesting beets mechanically, and for producing beef cattle of a specified weight.

—*Subsidies* to alleviate the poverty of farmers with inadequate resources. Subsidies were also designed to encourage people to stay on the farm since jobs in the cities were few and far between.

—*Credit* to farmers through the Agricultural Bank.

—*Crop research* to develop varieties from indigenous and imported material. An early maturing cotton was developed, for example, which within 3 years was grown by most cotton farmers.

—*Road improvements* to facilitate marketing of agricultural products.

—*Fertilizer* available as a "loan-in-kind" through the Agricultural Bank.

—*Drainage and flood control* programs, and projects aimed at farm consolidation and enlargement.

—*Land improvement and mechanization* assistance. In 1950 there were about 5,400 tractors in Greece. By 1966, with government help, there were 67,000—many of them single axle, suitable for small farms.

—*Dissemination of information and technology* through extension agents and technicians of the Agricultural Bank.

Foreign assistance, in conjunction with the domestic measures, provided an extra boost to agricultural development. Immediately following World War II, Greece received massive foreign assistance—more than most developing countries did at that time.

Initially foreign assistance was provided by Britain and the United Nations Relief and Rehabilitation Administration, followed by three successive U.S. programs. (20)

Development of Cattle Industry May Revitalize Malagasy Exports

A bright prospect on the Malagasy Republic's agricultural horizon is its potential for cattle production.

(The Malagasy Republic is the world's fourth largest island. It was formerly known as Madagascar, and was part of the French colonial empire until 1960).

Three-fifths of the Republic's land is used for grazing of cattle—about 9.8 million head annually. Yet the importance of meat and meat products as export items is overshadowed by coffee, rice, vanilla, sugar, and spices.

These "specialty" crops dominate agricultural trade, which is 80 to 90 percent of the country's total export trade.

Every year, however, Malagasy's imports run at least 30 percent higher by value than its exports.

Development of the country's cattle industry might be one way of easing this situation. As things are, Malagasy's cattle herd—large as it is in relation to the population—is economically underutilized.

Most of Malagasy's cattle are Zebu; they are not plagued by the tsetse fly as so many of Africa's cattle are. But there has been little selective breeding up to now, and the herd multiplies slowly. The nutritional level is low. Calf mortality is high. Grazing areas and pastures are of uniformly poor quality from extensive overgrazing.

The government has recently been trying to improve the quality of the country's herd by developing a breed tailored to Malagasy conditions and by improving range conditions with the help of a management program.

Visits by trade delegations from potential beef buying countries have prompted consideration of other projects, too. These include fattening stations, better slaugh-

tering facilities, and export promotion programs. (Between 1965 and 1968, meat exports fell steadily from about \$6.9 to around \$5 million.)

Cattle production on a commercial scale is being helped along by a World Bank loan of \$2.8 million signed in January 1969. With this aid, six government cattle ranches, from 49,000 acres to 62,000 acres in size, are being established for breeding and fattening purposes. Eventually they will be broken into 2,470-acre units for private ownership.

Another World Bank loan will indirectly aid the cattle industry, since it provides \$8 million to build 88 miles of roads and bridges scheduled for completion in 1971.

France and the European Development Fund supply most of the technical assistance funds that Malagasy gets. Aid funds from the U.S. go mainly for agricultural education and extension work. (21)

Flavoring Dept.

Vanilla and spice are among the things nice that Malagasy's exports are made of.

The Malagasy Republic is the world's foremost vanilla producer, providing from 60 to 70 percent of world needs. Export sales of vanilla earned the country \$10.3 million in 1968, 70 percent from sales to the United States.

Malagasy also grows about nearly one-third of the world's cloves,—and its exports of cloves and clove oil came to \$10.8 million in 1968.

In addition, black pepper exports were a generous shake worth \$2 million.

Thus, vanilla and spices combined earned Malagasy around \$23.1 million. Coffee exports came to \$35.8 million; rice, \$12.4 million; and sugar, \$6.4 million. Rafia and sisal were among the predominant sundries making up the balance of Malagasy's \$115.9 million agricultural exports in '68. (22)

Potatoes Get Buried in Switch Of Dietary Consumption by the Danes

Some of the Danes' longtime dietary staples—such as bread, potatoes, and to a lesser extent, milk, have become considerably less staple in the past 20 years.

Since 1950 consumption of potatoes has declined 50 percent, wheat flour and whole milk by almost 20 and 15 percent, respectively.

Further declines, though less

sharp, are in prospect as tastes increasingly will reflect higher incomes and urbanization.

What foods will the Danes be eating in greater quantities? Beef, fish, poultry, citrus fruits, and vegetables are the big ones, according to a study "projections of supply and demand for agricultural products in Denmark."

Import requirements of some items are also expected to rise. An increase of 30 percent, for example, is projected for oranges and lemons by 1980. (25)

PER CAPITA CONSUMPTION/PROJECTION OF DANISH AGRICULTURAL PRODUCTS 1950-1980

Commodity	1950	1960	1970	1980
Kilograms				
Beef	19.3	17.1	21.3	24.5
Poultry meat ¹	4.5	3.8	5.4	7.3
Fish ²	16.4	17.4	18.5	20.3
Whole milk	—	108.6	98.0	93.0
Wheat flour ³	49.6	42.5	41.8	40.3
Potatoes	125.0	116.0	62.5	60.8
Oranges and lemons	5.1	8.7	12.3	14.0
Cabbages	—	13.7	9.1	5.5
Root vegetables ⁴	—	13.4	13.8	15.6

¹ Since 1955, consumption and production have been estimated on a dressed weight basis. A live weight basis was used before 1955. ² Includes trout; excludes fish for processing. ³ In 1955, consumption estimates were adjusted for wheat and rye flour, resulting in an increase in the estimate for wheat flour, and a reduction in the estimate for rye flour. ⁴ Beet roots, carrots, onions, horseradish, and celery.

Farm Products Getting Smaller Slice of Britain's Import Pie

Sales of U.S. industrial goods to the United Kingdom have been brisk and fast rising in recent years. Not so in the case of U.S. farm commodities.

Last year only 17 percent of all U.S. exports to Britain consisted of agricultural items, compared with around 50 percent 20 years earlier.

Except for tobacco, most of the principal agricultural exports to the U.K. market have been dropping since the mid-1960's, particularly wheat, corn, and cotton.

By 1969, the value of U.S. farm products sent to the United Kingdom had declined to a 10-year low of \$402 million. And as a market for U.S. farm products, the nation's ranking fell from 1st place in the late 1950's to 5th position in 1969.

Numerous factors contributed to the shrinkage in U.S. farm exports. Among them: some expansion in Britain's own agricultural production, price competition, and shifts in the kinds of products required by the U.K. market.

The United States is not the only exporter that experienced sales declines. Britain has also cut back on imports from Canada and Australia. (23)

Increased Beef Output, Reduced Dairy Surplus in Sight for EC

Efforts by the European Community to reduce dairy oversupply and to increase beef production seem to be materializing.

Moves initiated in 1969 were designed to encourage cow slaughtering and to discourage the marketing of milk.

Subsidies for cow slaughtering and nonmarketing of milk were initially limited to 250,000 cows under each measure.

Recent data indicate that more than the initial allotment of 250,000 cows will be butchered under the slaughter subsidy measure. However, under the measure to encourage conversion to beef production, the initial allotment of 250,000 cows has not been reached.

Under the slaughter subsidy, farmers owning at least two cows receive \$200 for each slaughter—with a limit of \$2,000 to any one farmer.

To qualify for the subsidy, the farmer had to cease milk production before April 1970. Applications for the subsidy were filed in December 1969 for slaughtering carried out during the February-April 1970 period.

Additional measures include subsidized consumption of cold storage butter; and increased subsidies for use of nonfat dry milk and butter in calf, pig, and poultry feeds.

Improvements in milk yields could offset any decrease in milk production as a result of the subsidy program.

Although the rapid rise in the EC's milk production halted in 1969, stocks of dairy products are still burdensome.

Milk production in 1969 was at 74 million tons. The January 1, 1970, stocks of butter at around 345,000 tons were slightly higher than in 1969. When dairy products policy was adopted in 1964, stocks were 80,000 tons. (24)

Recent Publications

CHARACTERISTICS OF NEW BORROWERS OBTAINING FARM OWNERSHIP LOANS FROM THE FARMERS HOME ADMINISTRATION—FISCAL 1966. William McD. Herr, Farm Production Economics Division. AER 184.

Characteristics of those obtaining farm ownership loans from FHA did not change much since the expansion of the program in 1962. Borrowers, as before, were more likely to be tenants and young people with smaller farm businesses and lower equities than farmers as a whole.

WORLD DEMAND PROSPECTS FOR AGRICULTURAL EXPORTS OF LESS DEVELOPED COUNTRIES IN 1980. Anthony S. Rojko, Foreign Regional Analysis Division, and Arthur B. Mackie, Foreign Development and Trade Division. FAER 60.

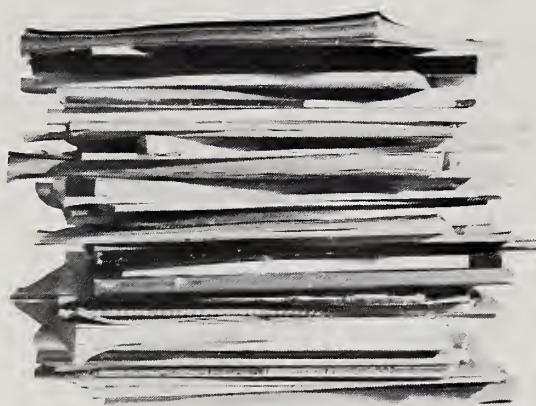
Demand of the LDC's for agricultural imports may increase rapidly, particularly for commodities which they do not produce.

RURAL POOR NEED BETTER MEDICAL AID. Neville Doherty, Economic Development Division. AER 172.

The lack of proper medical care is too often an additional aggravation confronting the rural poor. This report is concerned with what programs are now available and those that are needed to break the cycle between poverty, rurality and poor health.

PRICE SPREADS FOR BEEF AND PORK: REVISED SERIES, 1949-69. Lawrence A. Duewer, Marketing Economics Division. MP 1174.

The ways in which meat comes to market have changed markedly in the past 25 years. To more accurately measure price spreads under these conditions, the methods of estimating these values have been brought up to date. (See July 1970 Farm Index.)



The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

FOCUS FOR AREA DEVELOPMENT ANALYSIS: URBAN ORIENTATION OF COUNTIES. Herman Bluestone, Economic Development Division. AER 183.

This new focus on area development analysis should be of interest to professional staff supporting planning activities for local, State, regional and national development programs.

COSTS AND RETURNS: COMMERCIAL BROILER FARMS, GEORGIA. Wylie D. Goodsell, Owen K. Shugars, and Daphene E. Tippet, Farm Production Economics Division. FCR 74.

This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches in selected farms and ranches in selected regions of the United States.

MAJOR STATISTICAL SERIES OF THE U.S. DEPARTMENT OF AGRICULTURE—HOW THEY ARE CONSTRUCTED AND USED. VOL. 2: AGRICULTURAL PRODUCTION AND EFFICIENCY. Agr. Handbook No. 365.

This handbook is one of several that serve to update *Agriculture Handbook No. 118, Major Statistical Series of the U.S. Department of Agriculture*, published in 10 volumes during 1957-60. It incorporates a number of changes in methods and coverage that have occurred in 10 past decades.

EFFECT OF ALTERNATIVE WHEAT AND FEED GRAIN PRICES ON OPTIMUM FARM PLANS AND INCOME IN CENTRAL SOUTH DAKOTA, HUGHES AND SULLY COUNTIES. Erwin O. Ullrich Jr., and John T. Sanderson, South Dakota State University, in cooperation with Farm Production Economics Division, South Dakota Agr. Expt. Sta. No. 570.

This research contributes to a larger project—GP-5, "*Economic Problems in the Production and Marketing of Great Plains Wheat.*" The general objective of the South Dakota research was to provide farmers with data to promote profitable adjustments in their farming and production practices.

SANITARY REGULATION OF THE FLUID MILK INDUSTRY: INSPECTION, COST, AND BARRIERS TO MARKET EXPANSION. W. Webster Jones, Marketing Economics Division. MRR 889.

Cost to plants for expenditures associated with plant inspections averaged \$183 per plant in 1967. Assistance given inspectors by plant employees accounted for 86.9 percent of the total associated cost. The remaining cost was about equally divided between meals, lodging, transportation, and other miscellaneous expenses.

ALFALFA DEHYDRATION, SEPARATION, AND STORAGE: COSTS AND CAPITAL REQUIREMENTS. Carl J. Vosloh, Jr., Marketing Economics Division. MRR 881.

Separating alfalfa leaf and stem into high-protein feed for hogs and poultry and high-fiber feeds for cattle appears economically feasible. In this study, the costs of dehydrating, separating, and storing alfalfa include plant and equipment costs as well as operating costs for each of the major functions.

PERSONAL PROPERTY TAXES LEVIED ON FARMERS 1950 TO 1967. Tresa H. Matthews and Ronald Bird, Economic Development Division. Statistical Bulletin 447.

Revisions of previously published estimates show taxes levied by State and local governments on farm personal property totaled about \$382.5 million in 1967. This

Recreation Roundup

Do you want to explore your farm's potentials as a winter wonderland for tourists? Or perhaps you'd like to know how good your chances are of making a profit on an outdoor recreation next summer. And if you are interested in community development projects, do you know how important water can be as an economic factor?

The answers to these questions and many more may be found in one or more of over 100 articles, reports, and speeches prepared by the Economic Research Service between 1962 and 1969.

The material is listed in a recently published bibliography, *Outdoor Recreation*, ERS-442.

was more than double the amount in 1950.

AN ECONOMIC ANALYSIS OF LEVEL BENCH SYSTEMS FOR FORAGE

PRODUCTION IN NORTH DAKOTA. Wallace McMartin, Natural Resource Economics Division, and others, North Dakota Agri. Expt. Sta. CRR 14.

In North Dakota the use of level benches increased alfalfa, bromegrass, and wheat yields over yields produced on natural slopes. (See June 1970 Farm Index).

JAPAN'S FARM COMMODITY MARKET: A VIEW OF U.S.-AUSTRALIAN COMPETITION. Geraldine W. Abbott, Foreign Regional Analysis Division. ERS-For. 289.

Competition between the U.S. and Australia continues to grow for Japan's agricultural purchases. Commodities such as wheat, barley, grain sorghum, and cotton are staples the two countries will compete for in the Japanese import market. (See June 1970 Farm Index.)

Article Sources

State publications indicated by (*) may be obtained only from the experiment station or university cited. Manuscripts and special material are usually available only on request to authors.

1. N. D. Kimball, FPED, and others, Univ. of Wisconsin. Economic Evaluation of Liquid Manure Disposal Systems (manuscript).
2. W. Fred Woods, FPED. *The Tax Reform Act of 1969, Provisions of Significance to Farmers*, ERS 441.
3. Statistical Reporting Service. *Mink Production*, MtAn 6 (70).
4. John E. Lee, FPED. "The Future Capital Needs of Agriculture" (speech at Annual Agri-Finance Seminar, Alabama Bankers Association, Decatur, Ala., April 22-23, 1970).
5. N. D. Kimball, FPED, and William Soupe, University of Wisconsin. Labor Earnings on Two-Man Dairy Farms (manuscript).
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8. C. Richard Shumway, FPED, and Harold M. Stults, NRED. *Production Costs and Yields of California Field Crops and Vegetables by Areas, Average 1961-65 and Projected 1980*. Cal. Agr. Expt. Sta., Giannini Foundation Research Report 307.*
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23. Susan A. Libbon, FDTD. "United States Losing Share of U.K. Market for Principal Agricultural Commodities," *Foreign Agricultural Trade of the United States*, June 1970.
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NOTE: Unless otherwise indicated, authors are on the staff of the Economic Research Service (ERS) with their divisions designated as follows: Economic and Statistical Analysis Division (ESAD); Economic Development Division (EDD); Farm Production Economics Division (FPED); Foreign Development and Trade Division (FDTD); Foreign Regional Analysis Division (FRAD); Marketing Economics Division (MED); and Natural Resource Economics Division (NRED).

Economic Trends

Item	Unit or Base Period	'57-'59 Average	1969		1970		
			Year	June	April	May	June
Prices:							
Prices received by farmers	1910-14=100	242	275	281	281	282	281
Crops	1910-14=100	223	220	226	220	233	232
Livestock and products	1910-14=100	258	323	329	334	324	323
Prices paid, interest, taxes and wage rates	1910-14=100	293	373	376	388	388	390
Family living items	1910-14=100	286	351	352	364	365	366
Production items	1910-14=100	262	304	308	313	312	313
Parity ratio		83	74	75	72	73	72
Wholesale prices, all commodities	1957-59=100	—	113.0	113.2	116.6	116.8	117.0
Industrial commodities	1957-59=100	—	112.7	112.2	116.2	116.6	116.7
Farm products	1957-59=100	—	108.5	111.2	111.3	111.0	111.3
Processed foods and feeds	1957-59=100	—	119.8	121.4	124.9	124.1	124.8
Consumer price index, all items	1957-59=100	—	127.7	127.6	134.0	134.6	135.2
Food	1957-59=100	—	125.5	125.5	132.0	132.4	132.7
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,173	1,178	1,226	1,227	1,227
Farm value	Dollars	388	477	494	487	485	480
Farm-retail spread	Dollars	595	696	684	738	742	747
Formers' share of retail cost	Percent	39	41	42	40	40	39
Farm Income: ²							
Volume of farm marketings	1957-59=100	—	126	103	98	97	108
Cash receipts from farm marketings	Million Dollars	32,247	47,229	3,384	3,381	3,269	3,500
Crops	Million Dollars	13,766	18,790	1,056	861	869	1,200
Livestock and products	Million Dollars	18,481	28,439	2,328	2,520	2,400	2,300
Realized gross income ³	Billion Dollars	—	54.6	54.6	—	—	56.2
Farm production expenses ³	Billion Dollars	—	38.4	38.6	—	—	40.1
Realized net income ³	Billion Dollars	—	16.2	16.0	—	—	16.1
Agricultural Trade:							
Agricultural exports	Million Dollars	4,105	6,228	512	553.7	567.1	539.4
Agricultural imports	Million Dollars	3,977	5,024	430	507.6	437.5	490.9
Land Values:							
Average value per acre	1957-59=100	—	⁵ 187	⁶ 187	⁷ 186	⁷ 186	⁷ 186
Total value of farm real estate	Billion Dollars	—	⁵ 202.6	⁶ 202.6	⁷ 208.9	⁷ 208.9	⁷ 208.9
Gross National Product: ³							
	Billion Dollars	457.3	931.4	923.7	—	—	970.1
Consumption	Billion Dollars	294.2	577.5	573.3	—	—	614.2
Investment	Billion Dollars	68.0	139.8	139.3	—	—	133.8
Government expenditures	Billion Dollars	92.4	212.2	209.9	—	—	218.3
Net exports	Billion Dollars	2.7	1.9	1.3	—	—	3.8
Income and Spending: ⁴							
Personal income, annual rate	Billion Dollars	365.3	748.9	746.2	806.0	799.8	798.8
Total retail sales, monthly rate	Million Dollars	17,098	29,303	29,371	30,536	30,220	—
Retail sales of food groups, monthly rate	Million Dollars	4,160	6,322	6,278	6,747	6,688	—
Employment and Wages: ⁴							
Total civilian employment	Millions	63.9	77.9	77.7	78.9	78.4	78.2
Agricultural	Millions	5.7	3.6	3.7	3.6	3.6	3.6
Rate of unemployment	Percent	5.5	3.5	3.4	4.8	5.0	4.7
Workweek in manufacturing	Hours	39.8	40.6	40.7	40.0	39.8	39.8
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	3.19	3.18	3.32	3.34	3.36
Industrial Production: ⁴	1957-59=100	—	173	174	170	169	169
Manufacturers' Shipments and Inventories: ⁴							
Total shipments, monthly rate	Million Dollars	28,745	54,611	54,786	54,270	55,692	—
Total inventories, book value end of month	Million Dollars	51,549	95,905	92,215	97,775	97,786	—
Total new orders, monthly rate	Million Dollars	28,365	54,815	53,861	53,405	54,802	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual and quarterly data are on 50-State basis. ³ Annual rates seasonally adjusted first quarter. ⁴ Seasonally adjusted. ⁵ As of November 1, 1969. ⁶ As of March 1, 1969. ⁷ As of March 1, 1970.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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